

1116-01-1999      **James Evans\*** (jcevans@pugetsound.edu), Program in Science, Technology and Society,  
University of Puget Sound, 1500 North Warner Street, Tacoma, WA 98416. *The Antikythera  
Mechanism: A Masterpiece of Ancient Astronomy, Mechanics, and Mathematical Modeling.*

The Antikythera mechanism is a gear-work astronomical model and computing machine that was recovered in 1901 from an ancient shipwreck near the Mediterranean island of Antikythera. A wave of new research in the last two decades has clarified most of its functions. This machine, probably built around 200 BCE, recorded time in two calendars (the Egyptian solar calendar and a Greek luni-solar calendar). It displayed the changing positions of the sun and moon in the zodiac as well as the moon's phases. And it predicted the months and times of day of solar and lunar eclipses. Most likely, it also included displays of planetary phenomena. Gear trains provided a natural means of representing astronomical period relations. While the mechanism represents a Greek view of the universe, the underlying mathematics is largely Babylonian. This talk will give an overview of our present understanding of the Antikythera mechanism, with emphasis on the ancient mathematics that made it possible. (Received September 21, 2015)